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Twitter Sentiment Analyzer

System Size

Function Point Estimation

Functionality	Input	Output	Queries	File	Program interface
Key Word Search	1	0	1	3	0
Tweet retrieval	1	3	4	2	0
Preprocessing Data	1	3	2	1	0
NLP and Sentiment Analysis	1	1	1	3	0
Prepare and send sentiment report	1	1	1	1	1

	Complexity				
Description	Total #	Low	Medium	High	Total
Inputs	**5**	3*** 3**	**1*4**	**1*6**	**19**
Outputs	**8**	**4*4**	2***5**	2***7**	**40**
Queries	**9**	**4*7**	**3*10**	2***15**	**88**
Files	**10**	**5*7**	**2*10**	3***15**	**100**
Program interface	**1**	0***5**	**1*7**	**0*10**	**7**
Total Unadjusted Function Point (TUFP) =					254

The total processing complexity (PC):-

Complexity is from 0 to 3: (0=no effect on project complexity; 3=great effect on project complexity)

Tasks	Complexity (0-3)
Data communication	3
Team cohesion	2
Familiarity with technology	2
On-line data entry	1

Total Processing Complexity (TPC)=	8

- **The adjusted processing complexity (APC):-**
  APC=0.65 + (0.01 * TPC)
  APC=0.65 + (0.01 * 8)= 0.73

- **The total adjusted function points (TAFP):-**
  TAFP=TUFP * APC
  TAFP= 254*0.73= 185.42

- **Converting Function Points to Line Of Code (LOC):-**

Language/Tool	**Number of LOC / FP**
Python	53.33

Just an Example Reference

- 100% will be done in Python

- **Number of lines of code (LOC)= TAFP * # of(LOC\FP) * %**
  For Python = 185.42*53.33 = 9888.45
  So the total LOC= 9888.45 LOC

- **Estimating the effort:-** Effort = 2.4 * LOC/1000
  =2.4*9888.45/1000
  =23.73 person month

- **Estimating the schedule time:-**
  Time = 2.5 * $(effort)^{0.38}$
  =2.5* $(23.74)^{0.38}$
  = 8.33 months
- **Estimating the number of persons:-** average of # of persons = effort/time
  = 23.73 /8.33
  = 2.85 persons